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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,855	01/18/2002	Yasuhiko Mizoguchi		4421

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EXAMINER

RYMAN, DANIEL J

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,855

Applicant(s)

MIZOGUCHI ET AL.

Examiner

Daniel J. Ryman

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 12 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph.

Claim Objections

2. Claim 12 is objected to because of the following informalities: in line 11, "equipment as a transmit" should be "equipment serving as a transmit". Appropriate correction is required.

3. Claim 18 is objected to because of the following informalities: in lines 8-9, "predetermined form for detecting" should be "predetermined form used for detecting". Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 14 and 15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 14 and 15 are directed to a communication data packet, per se. A communication data packet is a data structure, which is non-statutory subject matter when claimed as a data structure, per se. To be statutory the claim must either have independent physical acts, or manipulate data representing physical objects or activities, or be limited to a practical application by producing a concrete, tangible, and useful result.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 16 recites the limitation "the radio station" in line 9. Claim 16 further recites the limitations "a first radio station" and "a second radio station." It is unclear from the claim whether "the radio station" refers to "a first radio station," "a second radio station," or both. For the purposes of prior art rejections, Examiner will interpret "the radio station" to be "the first and second radio stations".

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4, 9-11, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Du (USPN 6,603,740).

11. Regarding claims 1, 16, and 18, Applicant admits as prior art a radio station connected by wire to a first wire network including a first plurality of pieces of communication terminal equipment connected by wire and connected by radio to a second wire network including a second plurality of pieces of communication terminal equipment connected by wire and adapted

Art Unit: 2665

for transmitting and receiving a plurality of communication data packets (page 1, line 10-page 3, line 15), the radio station comprising: packet generating means for generating a packet having a predetermined form (page 1, line 10-page 3, line 15); wireless communication means for transmitting and receiving the plurality of communication data packets between the wireless communication means and the second wire network (page 1, line 10-page 3, line 15); wire communication means for transmitting and receiving the plurality of communication data packets between the wire communication means and the first wire network (page 1, line 10-page 3, line 15).

Applicant does not expressly disclose as prior art identification packet generating means for generating an identification packet having a predetermined form of the communication data packets; identification packet detecting means for detecting the identification packet generated by the identification packet generating means; and control means for controlling the identification packet generating means to generate the identification packet and for controlling the identification packet detecting means to detect the identification packet. Du teaches, in a wireless communication network, identification packet (loop test message) generating means for generating an identification packet having a predetermined form of the communication data packets (col. 1, lines 40-50 and col. 10, line 49-col. 11, line 14); first wireless communication means for transmitting and receiving the plurality of communication data packets between the first wireless communication means and a first wireless network (Fig. 1; col. 2, lines 60-65; and col. 4, lines 28-43); second wireless communication means for transmitting and receiving the plurality of communication data packets between the second wireless communication means and a second wireless network (Fig. 1; col. 2, lines 60-65; and col. 4, lines 28-43); identification

Art Unit: 2665

packet detecting means for detecting the identification packet generated by the identification packet generating means (col. 1, lines 40-50 and col. 10, line 49-col. 11, line 14); and control means for controlling the identification packet generating means to generate the identification packet and for controlling the identification packet detecting means to detect the identification packet (col. 4, lines 28-55). Du's radio station "makes unique transmission paths possible in the local area network" (col. 1, lines 34-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have identification packet generating means for generating an identification packet having a predetermined form of the communication data packets; identification packet detecting means for detecting the identification packet generated by the identification packet generating means; and control means for controlling the identification packet generating means to generate the identification packet and for controlling the identification packet detecting means to detect the identification packet in order to make unique transmission paths possible in the local area network.

12. Regarding claim 2, 9, 17, and 19, incorporating the rejection of claims 1, 16, and 18, Applicant's admitted prior art in view of Du discloses each limitation of claim 9, as outlined in the rejection of claims 1, 16, and 18, except changing a communication mode between the first radio station and the second radio station when the communication data packet is the identification packet. However, Applicant's admitted prior art in view of Du further discloses changing a communication mode between the first radio station and the second radio station when the communication data packet is the identification packet (Du: col. 11, lines 30-36).

13. Regarding claims 3 and 10, Applicant's admitted prior art in view of Du selector means for selecting a wireless communication channel for transmitting and receiving the plurality of

Art Unit: 2665

communication data packets from a plurality of wireless communication channels, wherein the control means selects a wireless communication channel at the selector means to change the communication mode (Du: col. 9, lines 20-67 and col. 11, lines 30-36).

14. Regarding claims 4 and 11, Applicant's admitted prior art in view of Du suggests ciphering means for enciphering (encoding through CDMA) each of the plurality of communication data packets transmitted and received by radio between the ciphering means and the second wire network based on a cipher key (CDMA code), wherein the control means changes the cipher key at the ciphering means to change the communication mode (Du: col. 3, line 66-col. 4, line 8 and col. 11, lines 30-36).

15. Claims 5-8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Du (USPN 6,603,740) as applied to claims 1 and 9 above, and further in view of Baker et al. (USPN 5,570,366).

16. Regarding claims 5 and 12, Applicant's admitted prior art in view of Du discloses communicating with ATM cells in the primary embodiment, where ATM cells do not include a destination address or a source address (Du: col. 1, lines 48-51). Applicant's admitted prior art in view of Du does not expressly disclose that each of the plurality of communication data packets includes a wire destination address portion indicating one piece of communication terminal equipment of the first and the second pluralities of pieces of communication terminal equipment serving as a destination of the communication data packet and a wire transmit source address portion indicating one piece of communication terminal equipment of the first and second pluralities of pieces of communication terminal equipment serving as a transmit source of the

Art Unit: 2665

communication data packet, wherein the identification packet detecting means sets the wire destination address portion equal to the wire transmit source address portion.

Baker discloses, in a wireless/wireline communication system, communicating between devices using packets containing "all required identifier information", such that that each of the plurality of communication data packets includes a wire destination address portion (network layer destination address) indicating one piece of communication terminal equipment of the first and the second pluralities of pieces of communication terminal equipment serving as a destination of the communication data packet and a wire transmit source address portion (network layer source address) indicating one piece of communication terminal equipment of the first and second pluralities of pieces of communication terminal equipment serving as a transmit source of the communication data packet (Fig. 6 and col. 4, lines 5-27). Baker further discloses that this packet complies with the Internet Protocol (col. 3, lines 57-65) where it is implicit that IP is a very well known protocol. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, in each of the plurality of communication data packets, a wire destination address portion indicating one piece of communication terminal equipment of the first and the second pluralities of pieces of communication terminal equipment serving as a destination of the communication data packet and a wire transmit source address portion indicating one piece of communication terminal equipment of the first and second pluralities of pieces of communication terminal equipment serving as a transmit source of the communication data packet in order to permit the wire network to utilize Internet Protocol packets.

Applicant's admitted prior art in view of Du in further view of Baker suggests that the identification packet detecting means sets the wire destination address portion equal to the wire transmit source address portion (Du: col. 2, lines 1-4) where the station uses its own address for the destination address in order to determine if a packet, which is sent to itself, will return to the station, thus indicating a loop.

17. Regarding claim 6, Applicant's admitted prior art in view of Du in further view of Baker suggests that the wire destination address portion and the wire transmit source address portion are each addresses of the radio station (Du: col. 2, lines 1-4 and Baker: Fig. 6 and col. 4, lines 5-27).

18. Regarding claims 7 and 13, Applicant's admitted prior art in view of Du in further view of Baker suggests wireless address adding means for adding a wireless destination address portion (packet unit address information) indicating a destination when transmitting and receiving operations are performed by radio and a wireless transmit source address portion (packet unit address information) indicating a transmit source when the transmitting and the receiving operations are performed by radio to each of the plurality of communication data packets sent from the wireless communication means to the second wire network (Du: col. 3, lines 43-52) where "packet units" are formed for transmission on the wireless network by encapsulating another packet.

19. Regarding claim 8, Applicant's admitted prior art in view of Du in further view of Baker suggests that the wireless destination address portion of the identification packet includes broadcast addresses in which each of the plurality of pieces of communication terminal equipment connected to the radio station and each of the plurality of pieces of communication

Art Unit: 2665

terminal equipment connected to the wire network are the destination (Du: col. 3, lines 34-38 and col. 10, lines 53-56) where "send[ing] a loop test message to the two sub-networks" requires a broadcast if the entire sub-network is to receive the message.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJR Daniel J. Ryman
Examiner
Art Unit 2665


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